DOCUMENT RESUME

ED 147 103 SE 022 974

AUTHOR Sai, Fred T.
TITLE Defining Family Health Needs, Standards of Care and Priorities with Particular Reference to Family Planning. Occasional Essay Number 4.
INSTITUTION International Planned Parenthood Federation, London (England).
PUB DATE 77
NOTE 34p.; Photographs may not reproduce well

EDRS PRICE MF-$0.83 HC-$2.06 Plus Postage.
DESCRIPTORS Demography; Developing Nations; Environmental Education; *Family Health; *Family Planning; Family Programs; *Health Needs; *Medical Services; *Population Education; Population Trends

ABSTRACT

This essay discusses family health needs in the developing world, their priorities, and the standards of health required, with particular reference to family planning. The author takes into account medical, social, and economic factors that influence those concerns. Some of the material presented in this essay first appeared in other international publications. The author has based his views largely on his experience in Africa. A reference section is included along with a listing of International Planned Parenthood Federation publications for further reading and IPPF Officers worldwide. (Author/MA)

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Occasional Essay Number 4

Defining family health needs, standards of care and priorities

with particular reference to family planning

Fred T. Sai

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Defining family health needs, standards of care and priorities

with particular reference to family planning

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Price $1.45 each or £0.85 (UK only).

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ISBN 0 900924 96 9

May 1977

Printed in England by Stephen Austin & Sons Ltd., Hertford

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This essay discusses family health needs in the developing world, their priorities and the standards of health care required, with particular reference to family planning. For a more general description of the place of family planning and population in the developmental process see *Population and Development* in the same series.

Some of the material presented here first appeared in 'Defining Health Care Needs, Health Care priorities and Standards of Health Care' (background paper for Health Conference organized by the National Council for International Health, U[illegible], 1973); 'International Foundations and the Development of Health Services in Underprivileged Areas' (article in 'The Future of Philanthropic Foundations', CIBA Foundation Symposium 30 (New Series), 1975); 'Family Health—A Challenge to Tropical Medicine' (paper for the International Congress of Tropical Medicine, Athens 1973 and published Jl. Tropical Medicine, Vol. 77, no. 4), 'Family Planning in MCH Services' (paper for UCLA Conference 1975; to be published), The Integration of Nutrition Activities in the Overall Health Plan' (paper at the International Nutrition Congress, Nigeria, 1975), 'Health, Nutrition and Fertility' (West African Regional Seminar on Population Studies, Population Dynamics Programme, Accra, 1972).

The views expressed here are those of the author, based largely on his experience in Africa, and should not be taken to represent the policy of the IPPF.

FAMILY HEALTH

Although the term 'family practice' has been used in medicine for a long time, it has never really been adequately defined. In many European countries, it remains no more than the episodic medical care of individual ill members of the family plus some immunizations and vaccination for the children. Recently, largely through the efforts of the World Health Organization, and, to some extent, pressures to find acceptable euphemisms for family planning and population activities, the phrase 'family health' has become increasingly accepted in medical circles. But it would be unfortunate to allow matters to remain in such an unsatisfactory state. Family health need not be interchangeable with family planning, nor should it be interpreted so widely as to lose its meaning and specificity for health service planning, programming and implementation. An avoidance of this requires a clarification of 'family' and then the services which would be included in 'family health'.

THE CONCEPT OF FAMILY AND FAMILY HEALTH

The concept of family has to be accepted as a socio-cultural one which cannot be given a simple, single, definition for all mankind at any given stage in our development. For Western Europeans, it would appear as if, for the present, a man, his wife and their immediate children constitute a satisfactory unit for family health activities. Even so, there may be areas of health where this concept could be too narrow. Children attend schools for much of the day and for the purposes of health services such schools—especially boarding schools—may be one huge family for a period of time.

However, there are many areas of the world where this nuclear concept of family has little validity when planning health services. The basic social unit is much larger. In many parts of Africa, and Asia, there is the so-called 'extended family'. The extended family usually includes a man, his wife, the relations of the wife and the relations of the man through varying generations. Such a group may be living together in a geographically compact area. On the other hand, they may be socially linked but physically apart; though they come together for specified family functions. In health terms, therefore, there may be far more continuous interaction among people forming a household than among biological family members.

The household itself, defined as people living in one geographic area, with a common pursuit, and eating from a common pot, is a useful indicator but may not be completely satisfactory. People may be living within the same compound and probably even form part of the same household yet they may not eat all meals from a common source of food supply and they may not share a common economic pursuit. For some activities, therefore, they may be part of one family; while for others they may not. When planning and mounting health services in such complex circumstances, it would be more useful to start with the target groups for which the programmes are to be mounted and then arrive at concepts of family in different operational terms which would respond to the desired objectives.

The area of family health is perhaps the one in which it is most necessary for us to remind ourselves about an old Russian statement in relation to communicable disease control: "Diseases whose origin, maintenance and spread in a community are essentially due to defects in the social, economic and cultural structures of that community, cannot be eradicated or controlled unless the social, economic and cultural defects are themselves corrected." If this statement holds true for communicable disease control, it is even more pertinent to family health practice. Practitioners should constantly remind themselves that no matter how narrowly they define their own activities in relation to family health, there is need for them to be involved in stimulating programmes which would lead to social and cultural change, and lead to the eradication or the amelioration of socio-cultural defects, especially poverty and ignorance, which might be impinging adversely on the health of the people.

It is impossible to separate family health completely from the comprehensive health care of a community and therefore it is within such overall comprehensive health activities that the extent of specific family health services might be defined.

HEALTH NEEDS

Health needs may be defined as a scientific expression of the actual major health problems which have to be overcome before any real improvement in a community or a nation's health status can be ensured. As a scientific exercise, it requires people specifically trained in the area of public health planning. Traditionally, the load of disease in terms of mortality and morbidity has been used as the major indicator of the health needs of a community, but this does not go far enough. Apart from diseases, an examination of the demographic situation, the nutritional status of the population and the availability of resources, i.e. trained health manpower, physical facilities, and funds, should help to produce a more complete picture of the true health needs. As opposed to these there are the 'wants' or 'felt needs' of individuals and communities.

1. Demography

The total population, its distribution by age and sex and the rate at which the population is expanding, are essential in determining needs. In most developing countries the crude birth rate is 35 to 50 per 1,000. Approximately 40 to 50 per cent of the population is still under 15 years of age, with some 20 per cent under the age of 5. The populations are likely to double in under 30 years and the total number of children per fertile woman life averages six to eight. Such figures immediately suggest that care of pregnancy and delivery of children, as well as fertility regulation, must rate very highly as a health need in developing countries.

Urbanization is proceeding at rates of 5 to 12 per cent per annum. Urban services are stretched to the limit and peri-urban squalor is becoming a major health problem. The obverse of this is the exodus of the more able and ambitious from rural areas, leading to a lowering of rural productivity.

Photo: UNICEF

2. Mortality and morbidity

Infant mortality rates, considered a critical index of the health status of a community, are very high in developing countries. Figures of 50 to 150 per 1,000 live births or higher have been quoted. The one to four year old mortality is also high. In many countries, children under five years constitute about 20 per cent of the total population, while accounting for 50 per cent of the total annual deaths.

The major causes of mortality in these younger age groups are malnutrition, the pneumonia/diarrhoea complex and other infectious and communicable diseases for which the methods of control or cure are already known. In any community which is well sanitated and where the health care delivery system is satisfactory, communicable and infectious diseases are no longer a major health problem. The high incidence and prevalence of such diseases must therefore be considered as an indication of low health status and consequently a need. Vector-borne diseases and those carried by food and water are very frequent and indicate poor environmental control.

3. Nutritional status

Much of the morbidity and mortality in young children in developing countries is associated with poor nutritional status and although community assessment of nutritional status is difficult, it nevertheless should be undertaken as one of those critical areas which indicate the presence or absence of positive health. There are areas where chronic sub-nutrition is an accepted phenomenon.

4. Community concern

This has been expressed as the 'wants' of a community and they may or may not be really linked to major causes of morbidity and mortality. Generally, concern exists for certain basic needs which may be related to good health; these are water, food and housing. On the other hand, in terms of disease, the only 'wants' which may produce much community concern are sudden epidemics or diseases mentioned by history as bad diseases which might have decimated a given population in the past. They may have little relevance to the magnitude or seriousness of the diseases today. Tuberculosis and leprosy are cases in point; these are serious diseases, and much feared by the populace, but they do not kill as much as malaria, pneumonia/diarrhoea and malnutrition.

Social and political manipulation of a people may lead to an expression of community concern about illness or conditions completely disproportionate to the gravity of such conditions as a health threat to the population concerned. Similarly, such manipulation may also lead to excessive pressure on governments to embark on delivery systems which may not achieve the best possible health results for the population given its resources. The excessive demand for hospitals where the needs are for simpler facilities, widely distributed, may be mentioned.

One of the unfortunate aspects of community concern is that in many instances the concern of the medical profession and the elite of a community may be responding to uninformed expressions of need, rather than being leaders of thought for the demand of suitable facilities and programmes.

5. Family health needs

To attain a satisfactory family health care system it is necessary to understand what would be needed from the point of view of the consumer. The consumer in this case is the family, however defined, and its members.

(a) The family members should enjoy freedom from serious or disabling mental or physical illness, and they should receive attention for slight illnesses which may have important consequences for general health and household economics.
(b) Their housing and general environment should be conducive to health.
(c) They should have enough education to enable them to integrate socially within their community, to know the community services available, and to use these selectively and effectively.
(d) They should have access to food of sufficient quality and quantity to ensure adequate growth and development, and the maintenance of good nutrition.
(e) Medical care should be available with emphasis on pregnant or lactating women, infants and young children.
(f) They should have access to fertility regulation services, sex education, and sex counselling, to enable them to make decisions about their own fertility from choice based on knowledge.
(g) There should be a social supporting system for assistance with the effects of physical and mental illness on the family as a whole.

6. Resources

Trained manpower in all categories is in short supply. But many countries seem to give overwhelming priority to the physician. The expensively trained physician has basic requirements for effective action which narrows his usefulness to many communities. Large numbers of simply trained para-medicals and auxiliaries of various levels are a greater need in most countries. The criteria for assigning priority should be which category can benefit most people at least cost. The same criteria should apply to physical plant and equipment.

STANDARDS OF HEALTH CARE

It is very difficult to define standards of health care. The delivery of health care is a technology and not a basic science. This means that the delivery system takes place within a socio-cultural and political environment which sets the objectives and limitations. Thus governments, given their own resources and a knowledge of what they wish to achieve, predetermine the delivery system.

For a health care system to be comprehensive it must include the following:

1. Geographic comprehensiveness

If a country is delivering comprehensive health care to its population, then it should strive, by the time it has reached the peak of achievement, to have covered the entire

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geographic area within the boundaries of that country. This does not mean that all countries must be able to achieve this coverage before they can be considered as promoting comprehensive health care for their populations. What it means is that the planning should be geared towards the whole area, although implementation might have to choose priority areas depending on the ease of access, the major health needs of the area, population concentrations, and the expected geographic impact of the programmes.

2. Comprehensive population coverage

Programmes and plans have been mounted which, although they have on paper reached the whole geographic area, have nevertheless left large groups of the population untouched. In fact the major delivery systems used in much of Africa today are geared to supplying the 'wants', and perhaps some 'needs', of small proportions of people resident in largish towns and urban areas, to the exclusion of the vast majority of the people who are in the rural areas. For the programme to be comprehensive, it must be able to overcome the vast injustices done to rural populations, to women, and to children.

3. Comprehensiveness in disciplines

Any programme of health care for a population must include an essential minimum of activities that would help the majority of that population to achieve reasonable health status. These are likely to include elementary first level medical care for the total population as quickly as possible, protective and promotive health care activities such as mother and child health/family planning activities, nutrition, and environmental sanitation. Health education services should go alongside with all of these activities. There must be activities related to the gathering of basic scientific data about the population and its needs, to permit the planning and evaluation of the services that are to be provided. The provision of good water supply systems is necessary. Some or all of these activities need to be balanced and provided to the population in a definite way to ensure ready acceptance and participation.

4. Comprehensiveness over a time scale

A comprehensive delivery system has to be continuous, or at least regular in time, and be able to anticipate problems. Episodic visits for single medical care purposes may create a demand which then remains unsatisfied and may aggravate social situations. A system of delivery—be it daily, weekly or even monthly—must be regular.

5. Physiological or target group comprehensiveness

Programmes aimed at particular priority groups must seek to encompass the whole of that group in the shortest possible time and within manageable financial limits. Programmes aimed at infants and pre-school children, for example, will be unsatisfactory if all of the resources are used to reach only some 10–20 per cent, as is the case in some developing countries today.

There is practically no country which can claim to have a health service which is as comprehensive as the theoretical concepts that have been enumerated above. It is however essential for all health planners to have this as a theoretical framework

within which they are trying constantly to develop their services. The present situation in many developing countries where more and more resources are put into less and less in-depth curative medicine for a few people who are within reach of hospital centres of the big towns, must be halted if social justice is to be ensured for the total population. It would be better to have an elementary level of health care for the full population than to have the situation[1] where less than 10–20 per cent of the population are consuming more than 80–90 per cent of the total health budget.

6. Family health

It is under physiological or target group comprehensiveness that family health fits into the general scheme. Family health should not be defined so widely as to include all the activities within a health service.

Family health relates primarily to reproduction, growth and development—all of which are in themselves in a dynamic relationship with environmental, social and cultural factors. Reproduction is dependent on fertility behaviour and fertility behaviour itself is closely related to cultural matters, such as age at marriage, the position of children in society, living conditions and economic patterns. It is also related in many cases to the permissiveness or non-permissiveness of a given society; the attitudes to pre-marital and extra-marital sex, inheritance, legitimacy and illegitimacy of children. It may also be related to a large extent to straightforward biological factors, such as the morbidity and mortality rates of children and of their mothers.

All these factors are in their turn related to environmental factors such as the types of diseases that are common in a given area and the channels available for the transmission of these diseases. Feeding practices, selection of food, and the agricultural practices of the area, are also of considerable importance in this. It is therefore no great surprise to find that high fertility rates appear to be in direct response to, and form a vicious circle with, high loads of morbidity and mortality from infectious conditions, malnutrition and adverse environmental circumstances, which are all due to the problem of individual and community poverty.

7. Training

It is now very obvious that, with the demographic and health situations as they exist in developing countries today, the time has come for all medical research and training institutions in the field of tropical medicine to accept the challenge posed by family health. It is not enough to save lives. The life saved must be worth living—therein lies the challenge.

It is necessary to emphasize that something different need not be inferior. The schools of tropical medicine and the newer medical schools in developing countries must have the courage to try new, unorthodox, and practical, curricula based on the work experiences in the less sophisticated countries. Managerial and supervisory skills are important for the physician. The physician's identification with, and commitment to, the aspirations of the community to be served are very important attributes. Medical education must try to identify the components of services and skills required for such a total endeavour. It should not simply pay lip service to com-

munity medicine; it should actually realize that the anatomy and physiology of a community can and ought to be learned with the same degree of seriousness as the anatomy and physiology of the individual human body; thus laying the foundation for true comprehensive medicine.

8. Research

For the immediate problems there is enough technology for major breakthroughs. Research should therefore be oriented to:

- methods to identify needs better;
- identification of simple indices for planning and evaluation;
- identification of community resources and strengths;
- devising a simplified minimum package in each community that will really make an impact;
- village level food protection.

9. Costs

All activities which are related to maternal and child health in villages, or in urban settlements, must be free to those who benefit. Communicable diseases, because of the adverse effect these may have on the community, may also be considered for free treatment. However, city dwellers in settled parts of the city who have sophisticated hospitals within reach, ought to be made to pay for some of their medical care by way of social security or self help insurance schemes, such as described by Sai.[2]

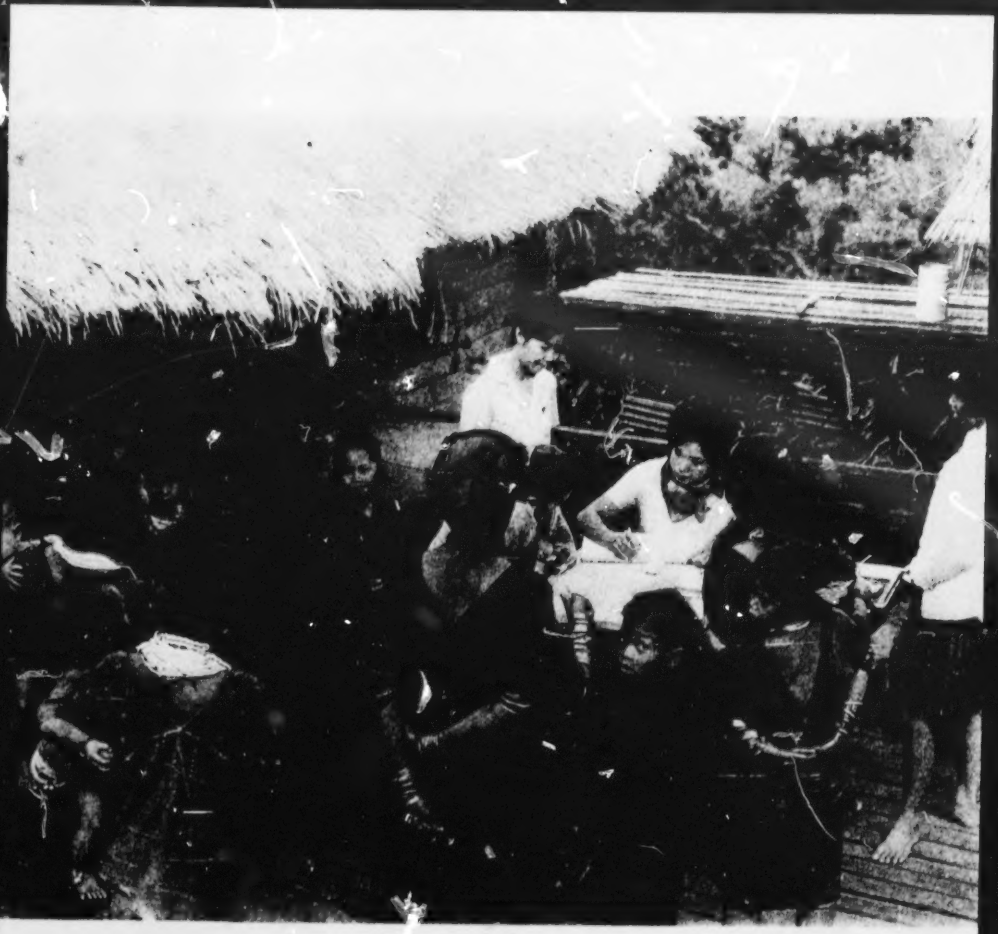
The health care system should be able to identify special risk groups who may be given more continuous supervision and surveillance than the rest of the population. It is a major fault in less developed countries that their health policy makers think that the health of the majority of the people will be improved through medical treatment in hospitals.

It may sound cruel, but in most developing countries today, the closure of their major hospitals would probably make no great impact on their health statistics, but would release resources for more positive health care. Then, the major activities which would make an impact on the total health statistics could be identified and funded properly.

10. The role of international assistance

Immediately evident requirements are increased aid for the development of health planning and management competence in less developed countries; international support for the present WHO efforts to popularize the concept of primary health care; and a deliberate de-emphasis of the doctor's importance in health as against general medical care. International institutions and local schools must have mutual interaction and respect. International institutions might actually and deliberately give status to innovations which are now taking place in schools around the world. They must themselves identify and take part in such innovations. They may help to raise funds and allocate these for broad fields.

There is a particular role for international foundations, who can make a unique contribution in sponsoring innovative projects, especially those which make use of



personnel who might not be considered members of the classical health team. Such assistance would allow government acceptance to be based upon proven results—thus avoiding unnecessary political 'loss of face'.

Population and family planning activities have been made uncomfortable and sensitive for many governments, as well as for international aid granting agencies. The over-enthusiastic advocacy of family planning and population control, either as a prerequisite for development assistance or as a panacea for solving the world's problems, has led to an undesired reaction against such programmes. This, among other things, has made even those governments which would normally be favourably disposed towards family planning, unable or unwilling to undertake the responsibility.

Philanthropic foundations, since they have no political involvement, ought to be able to undertake population and family planning activities, both as an integral part of general health services and as a component of other community-based education and development efforts. Within such programmes it would be possible to create local level manpower which would carry on the services of education and motivation.

HEALTH CARE PRIORITIES

In establishing health care priorities, all of the available sources of data should be used. It is only after analysing such data that the true health needs can be assembled. Data may be obtained from vital registration, epidemiological studies, service documents, special surveys, specific disease records, information about health facilities and available general infrastructure resources, including men, material and funds—actual or potential.

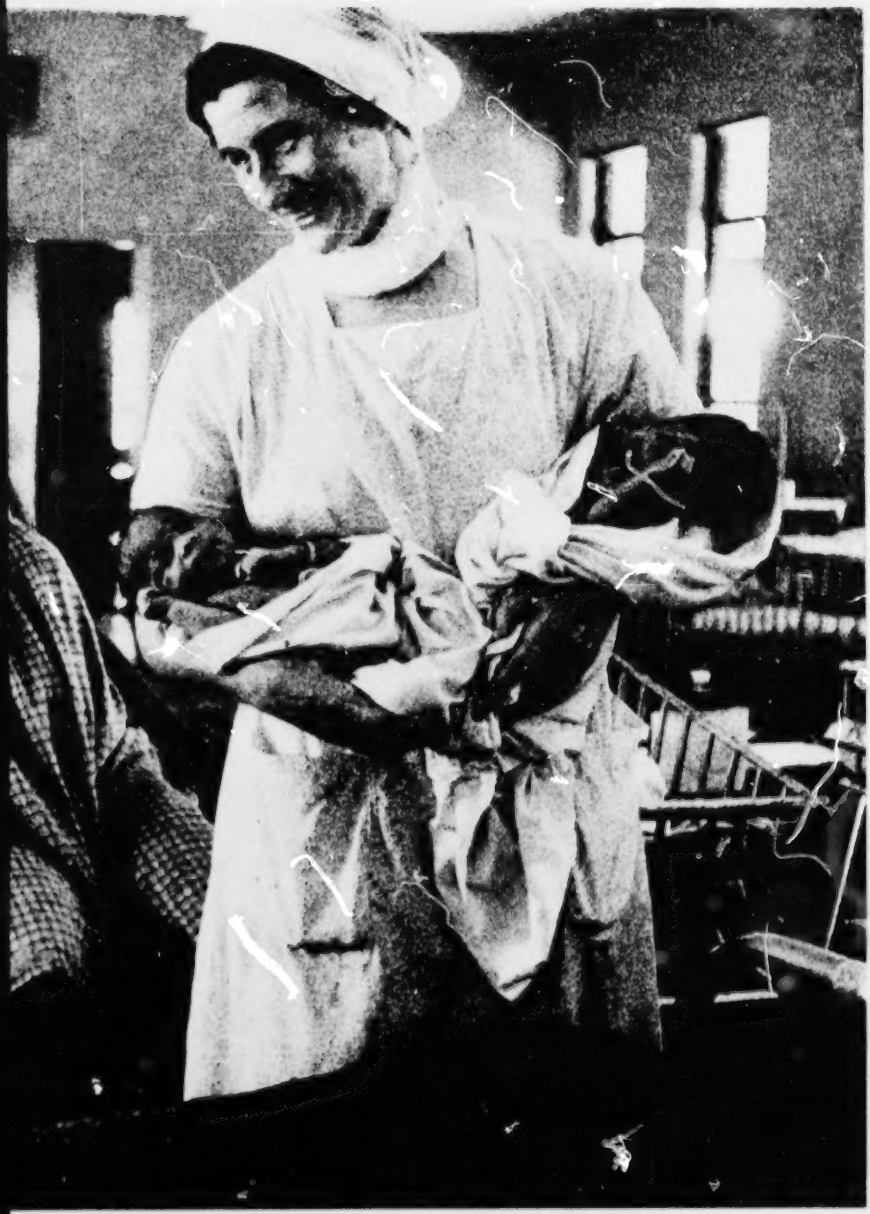
These can then be viewed in relation to the wants of the community as expressed by its political leaders and elite and judged against the feasibility of achieving a desired outcome, given the realities of the resources available. As an example, malaria—in terms of morbidity and mortality—is a very grievous disease in Africa. There are some useful measures for treating affected individuals and for attempting control of the mosquito. However, given the realities of the African political situation and the difficulty of controlling the vector (anopheles gambiae), very few African governments give malaria control very high priority. On the other hand, yaws, which also had quite a high prevalence, was found to be so rapidly conquered by penicillin that it was given very high priority and conquered.

Thus, in the formulation of any programmes and projects, *needs*, *wants* and *feasibility of achievement* should be the three cardinal criteria for granting priority. The weight put on any one of these will depend on local circumstances and how a particular programme can have a multiplying effect or hold the key to others.

First, attention should be paid to research. Research and an understanding of some of the more complicated problems are needed for any satisfactory planning. This need not be highly sophisticated research.

1. Data collection

Basically, a methodology for rapid collection and analysis of data is very necessary. Medical schools frequently bemoan the absence of data with which to plan relevant



curricula and help develop services; yet few of these schools have really taken a lead in helping countries to arrive at simple data collection systems and analyses which would be of value. Traditional mortality and morbidity statistics are still inadequate.[3] Immediate and secondary causes for such morbidity and mortality, including the role of malnutrition, the role of poor child spacing, and the health consequences of urbanization, are important research activities that schools can undertake.

2. Planning and programming units

Comprehensive development planning is a recent innovation in many of the developing countries, as indeed it is in many Western European countries. The inclusion of health as a sector in such planning is generally far behind that of the other sectors, whose impact on the general economy can be more readily quantifiable. Quite apart from illness being a drag on the national economy, the positive health of the industrial labour force and of agricultural workers is a definite input into economic development which needs to be stressed and reflected in health planning. Planning for the attainment of health should, therefore, be seen as a necessary priority in development programmes; but this cannot be undertaken without an appropriate statistical background and a thorough knowledge of the socio-cultural environment within which plans will be implemented.

Such plans and programmes must have both the short term and long term targets very clearly emphasized and the relationships of such targets to those of the other sectors of the development plan must be made clear. The plans must of necessity devote the greater part of their input to the demonstrated real needs of the community rather than to the wants as expressed by the politicians. This requires very courageous decision-taking on priorities, and a firm research basis.

One major problem to be faced is to cut back on the disproportionate investment in, and present expenditure on, current programmes with no real relevance to true needs. More socially just systems may need to be substituted for the compulsive concentration on the achievement of so-called 'excellence in medical care'.

The development of a local planning unit should serve to provide 'on-the-job' training for both health and non-health staff required for comprehensive planning. It would help such personnel to work out their relationships, identify the resources available within the local community for planning, and involve them fully. In this respect even the very low level staff needed for the collection of basic data could be trained and made to feel essential members in the planning process; a necessary involvement if they are to improve on their performance.

3. The development and testing of indices

There is a grave need to develop and test indices which may be simple and which can be used to indicate problem areas in family health as well as help to assess the impact of programmes.

A planning unit in a developing country might include a section on health statistics and evaluation as well as departments for planning and programme development. By insisting on continuing evaluation based on simple indices, a general uplift of the

total services might be achieved.

4. Pilot health projects

Before a plan can be implemented in a general way, the success and relevance of its major components might need to be demonstrated and this would involve the establishment of a pilot project or projects. The pilot project should be of sufficient size to be able to test adequately the major points of a programme, and at the same time be small enough to be completely covered within a satisfactory time framework. Since delivery systems of health care are the major bottleneck to health improvement today, the best pilot projects would be those which relate to comprehensive health care delivery.

Such a project would be used for analysing, not only the components of the services, but also the needs for personnel. When such needs have been established, the recruitment and training of personnel could be undertaken within the pilot project. The auxiliary health worker training in Tanzania,[4] the part-time health worker of Guatemala[5] and the rural health technician are examples of low level personnel trained and working in specific activities within a locality.

FAMILY PLANNING IN HEALTH CARE

In considering the role of family planning in general health care, it may be useful to look briefly at its relationship to the problem of population growth.

One thing which has to be made quite clear is that the present population explosion, as it is called, is a very recent phenomenon in many of the developing countries. Before the 1950s the populations of the more advanced countries were growing at a faster rate than the populations of the developing countries. Although factors other than bio-medical technology do play a part in the excessive growth rate, there is little doubt that the major contribution to the population growth problems of the developing countries is due to the satisfactory results being achieved by modern biomedical technology. Mortality rates are down while fertility remains high. If, in spite of the imperfect delivery systems that we now have for our technology, and in spite of the poor planning of the systems that we now know to exist, the systems are still able to save from death such large numbers as to help create and intensify the population growth problem, then we should be asking ourselves what happens when we perfect the system, or when we give ourselves more cause for concern for the population as a whole.

It is because of this dilemma that it is necessary for all who will be involved in family health practice to see that they can evolve a delivery system that can, among other things, help to break the vicious circle which is created by high morbidity and mortality of infants and young children, and continued high fertility.

Pregnancy and parturition carry known risks to mother and infants. However, the actual absolute risk can be so altered by social and other environmental factors as to make studies of such risks very difficult. It is now generally accepted that the availability and accessibility of competent medical care, adequate social security systems,

education (especially of women) and good jobs, all work together to reduce the risks. It is in the very countries in which good conditions exist that fertility rates are lowest and pregnancies reasonably spaced.

The irony is that studies undertaken in such areas on the relationship between fertility and health may therefore lead to conclusions which may not be directly relevant to conditions in the poorer, less advanced countries and communities. It is because of this that slogans like 'Take care of the people and the population will take care of itself' or 'Go for development and people will take care of their families' have to be challenged and put into a meaningful perspective. Family planning is now generally accepted as a human right of individuals and couples; one which could make a positive contribution to health. The evidence of the contribution can be examined with respect to mothers, infants and young children.

1. Maternal age

The age at menarche decreases with improvement in nutritional and general health status while menopause is delayed, thus increasing the total fertile period of a woman. In parts of Africa the women in the 40–50 year age group who have had some education and married into the upper classes of society reached their menarche between 15–17 years of age. Their children reach menarche at 11–13 years; similar to the situation in Europe and America now. Such early onset of puberty makes teenage pregnancies much more likely. Yet the evidence suggests that irrespective of social class and the amount of care available, the risks to life and health of the mother and child are high for women under the age of 18 years and particularly high for those under 16.[6]

Those having their first child are more likely to have various pregnancy complications if they are in the under 18 age-group than if they were in the over 18 age-group, and complications rise sharply again when the women are aged 35 or over.

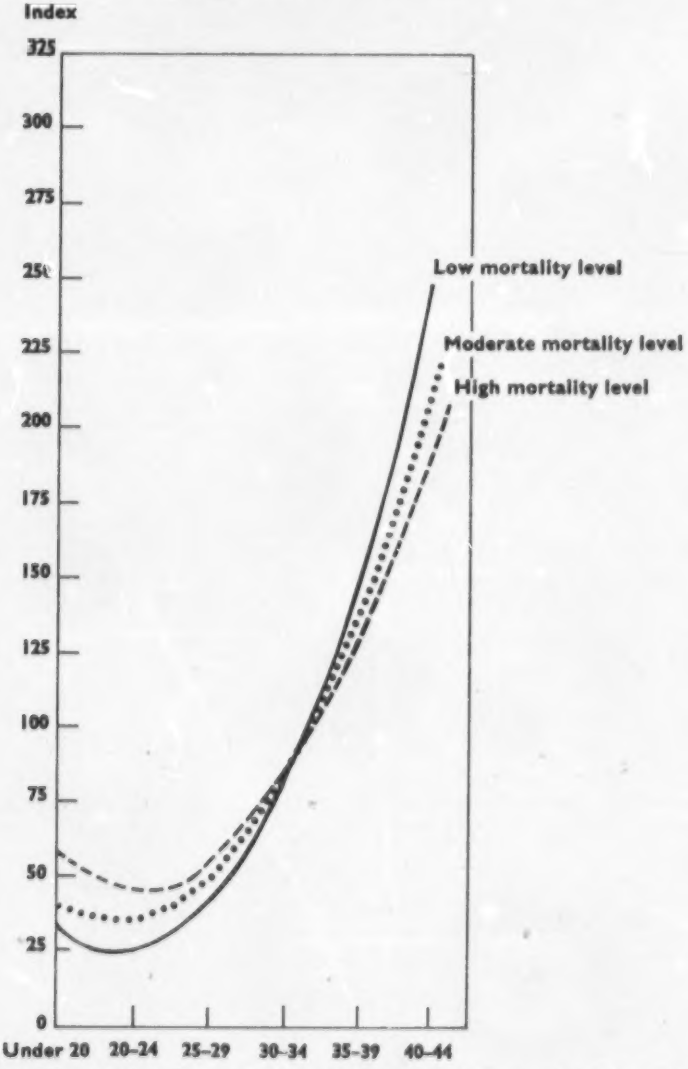
The frequency with which a mother has the children is also important. In developing countries women who have many children closely spaced are unlikely to have their blood levels and general physical resources restored adequately before they have the next child; they too are considered a serious risk group.

2. Maternal health and pregnancy

Pregnancy is a great physical stress to the mother. A child *in utero* is essentially a parasite, receiving all its nourishment from the host, the mother. In those countries where the nutritional status is marginal, a pregnancy may tilt the balance and precipitate a woman into an overt state of malnutrition.[7] There are communities in Africa and Asia where women may carry a baby to term with little or no gain in weight and where the women actually lose weight while lactating. Such women are literally milking the flesh off their bodies for their children. Signs of vitamin deficiency, such as cheilosis, bleeding gums, macrocytic anaemia as well as iron and iodine deficiency, are all much commoner among pregnant than ordinary women. When pregnancies occur at frequent intervals the mothers are unable to make up for the deficiency and many of them are nutritionally depleted by the time they have their fifth and subsequent children—a situation which is described as the maternal depletion syndrome.

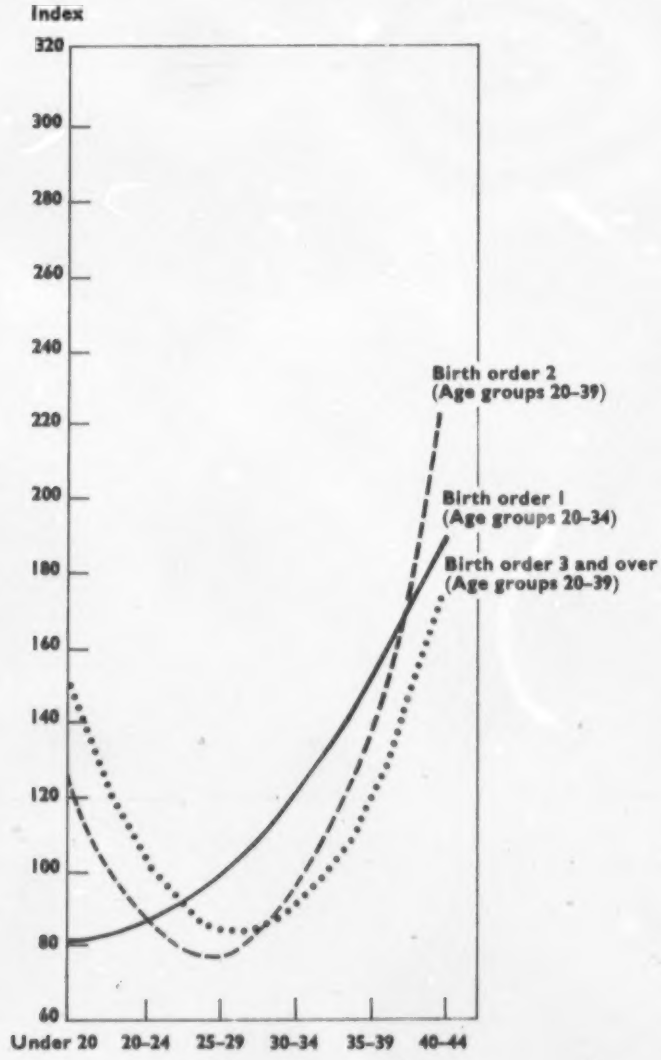
Photo: UNESCO/Dominique Roger

*Figure 1.** Maternal mortality: Index by maternal age, for selected countries, 1964–66 (Index based on unweighted average rate = 100)



*As adapted from: *Parental Age as a factor in Pregnancy Outcome and Child Development.* Reports on Population/Family Planning, August 1974

*Figure 2.** Perinatal mortality: Index by maternal age, for selected birth orders, areas and years (Index based on unweighted average rate of age groups in parentheses = 100)



* (Same as for *Figure 1*).

There is ample evidence that pregnancy reduces the resistance of women to infections and infestations of various kinds. In malarious areas for example, this may pose a serious threat to health.[8]

There are many diseases which increase in seriousness during pregnancy and parturition. Heart, kidney and lung diseases of various kinds used to be considered contra-indications to pregnancy. There are other diseases which show a higher incidence in grand multipara than in a comparable group; these include hypertension, kidney disease and diabetes.

3. Pregnancy outcome in relation to parity

It has been convincingly established that there is a relationship between stillbirth rates and parity. It is high for the first pregnancy, decreases for the second and third with the risk increasing again with the fourth and subsequent pregnancies. The graphs in Figures 1 & 2 illustrate these points.

The prematurity rate is another index related to parity. One United States study[9] found an increase of 30 per cent in the risk of premature births to white women with five or more children, compared to those with one or two children. There is evidence[10] that the interval between births is also associated with prematurity, with the highest rates for births at intervals of one year or less (see Figure 3).

Figure 3. Percent premature births by birth interval, Britain, 1946

4. Child health in relation to birth order and spacing

Birth interval exerts a great influence on morbidity and mortality during the first two years of life. In the Khanna study in India, Wyon and Gordon[11] found that both neonatal and infant mortality were high for children born within a two-year gap, and diminished as the interval lengthened. Mortality in the second year of life is also highest in children following a sibling by less than a year. The most favourable rates occur in those separated by three to four years.

Among the very illiterate communities the appalling child wastage due to close spacing is well known and traditional steps are taken to prevent this. In many Ghanaian rural societies a woman is not supposed to resume sexual intercourse until the last child is weaned, which can be any time between 18 and 24 months. Other measures often taken to prolong the birth interval include lactation and traditional contraceptive techniques. In such communities a child who is deprived of breast milk before reaching the age of one has a very serious risk of death from protein-energy malnutrition. There is more evidence of clinical malnutrition among very closely-spaced children than among the well spaced. The risks of illness and death from infectious diseases are also high for families with a large number of children born too closely together.

All the available evidence would indicate that there is an optimum period for a woman to have her children, and an optimum interval between pregnancies in order to ensure the lowest possible risk to both mother and child as well as other siblings. These are dependent on many factors and may vary from woman to woman.

5. Family planning aims

The specific aims of family planning in terms of the health of the total family may be summed up as follows:

— to ensure the postponement of first pregnancy until the woman is in her early 20's;
— to ensure a gap of 2½ to 4 years between subsequent pregnancies;
— to ensure the cessation of reproduction after a woman attains the age of 35 years;
— to ensure the achievement of a planned total family size.

The attainment of these aims is dependent on the availability of education and information on fertility regulation as well as adequate services for those who wish to practise family planning. Such services should include provision for investigation, treatment and prevention of infertility.

6. Research

This should include research into the methods of contraception themselves; their acceptability in differing circumstances and under varying conditions; and the delivery systems that would enable them to reach the people who need them. It is necessary to find out what services and counselling can be delegated to other types of personnel.

Social research into these questions, including the avenues of diffusion of knowledge and the blocks to such avenues, is a major area of need. We need to know what makes people accept or reject contraceptives as a whole, or a particular contraceptive, and to

identify the other problems related to drop-out rates. These are only a few of the topics needing investigation.

In any or all of these fields, the schools of tropical medicine and medical schools in developing countries, as well as schools of social science, ought to be able to evolve institutional arrangements which will make it possible for them to use their available manpower to the full, in undertaking some of this research. The research mentioned above is practically all of the 'mission oriented type' which would have immediate relevance and applicability to health service planning. This would make it possible to state service objectives clearly and subject them to evaluation.

7. Information and education

Sex education should form part of normal education and should be handled jointly by parents and teachers. It should not merely deal with the biological features of sex and reproduction but concentrate on family life education. This would include the social structure, and expectations in relation to sex and marriage, as well as the psychological and emotional aspects. Before young people mature fully, they must be informed of the problems related to early pregnancies and guided to a life which ensures the necessary delay without affronting social mores. It is a matter for each society to decide who should receive actual contraceptive advice and services. However, nothing but harm can be done if such a service is withheld from sexually active youngsters.

For those already in the fertile years, education and information should concentrate on the importance to health of spacing and limiting of the number of children. A particular emphasis is to be placed on the contribution of proper spacing to the maintenance of satisfactory lactation. For these in the fertile years family planning services are essential.

The family planning service should be delivered in a simple and efficient way with the minimum possible social and geographic gap between service personnel and recipients. It should be unobtrusively integrated with other promotive health activities for the total family. The most peripheral service should be based on the community's own resources utilizing extension personnel, auxiliary health personnel, as well as teachers and traders in order to achieve total health education and comprehensive distribution of contraceptives.

8. Family planning services in maternal and child health programmes

Within any service, certain groups should be given special attention. These include:

(a) Pregnant girls under 18 years of age;
(b) Women with children under 2 years of age;
(c) Families with poor child development and survival record;
(d) Women with poor obstetric histories;
(e) Families with poor socio-economic circumstances;
(f) Women aged 30 to 35 with four or more children.

In many developing countries, MCH services reach less than 20 per cent of the target group. By implication, therefore, if family planning services were to be com-

pletely tied to these they would not be very successful. Naturally, any clinic for MCH should also serve as a centre for the distribution of contraceptives. Such a centre may concentrate on surgical methods of fertility regulation such as tubectomy, vasectomy and abortion. It should also train health personnel in their management role for MCH and family planning services.

Family planning as such has only recently been accepted as a health problem. It is with the development of methods that medical people can handle that doctors have come to accept family planning as something that they ought to be involved in. It is a pity that, from that standpoint, many countries have therefore come to view family planning as a medical or within-clinic service.

Clinics, as they are conceived and as they are run, are, in the majority of cases, for providing services to sick people. But sick people are different from people who are well. They are different not because they are sick, but because they know they have to depend on somebody else, the doctor or other health personnel, for their recovery. It is because of this that they are prepared to accept certain abuses, and to undergo certain experiences which are difficult for a well person to accept and undergo on a continuous basis. A well person may accept and undergo them in the short term, but not on a continuous basis.

Fertile women and parents who are not sick, are not particularly receptive to efforts to provide them with services for themselves or their children which are based on the same ideas of the way we provide services to sick people. A fertile woman is not a patient simply because she is fertile; and it is futile to expect this woman to travel four or five miles to a clinic and then to sit around the clinic for an hour or two, each time she needs a contraceptive packet.

It must be recognized that these services have to be of a different type and nature. It must be accepted, however, that this statement does not only hold true for family planning and family health services. It applies equally to all of the promotive and protective health services.

Let us therefore admit that in the main, health in a positive sense can come more readily to a community through means other than through straightforward, orthodox medical care delivery systems. From the standpoint of the health profession, such a delivery system must recognize the importance of other community contributions to the improvement of health. The profession's own input can then be part and parcel of what has been described as a comprehensive health care system.

It is necessary for doctors to recognize that their role in this particular activity is not the same as their role in hospital care of the sick. They have to recognize that in providing this kind of protective and promotive service to mothers and to their children, they should also be providing the educational capability to fathers, and to all families, to enable them to maintain health at a positive level for themselves and for those who depend on them.

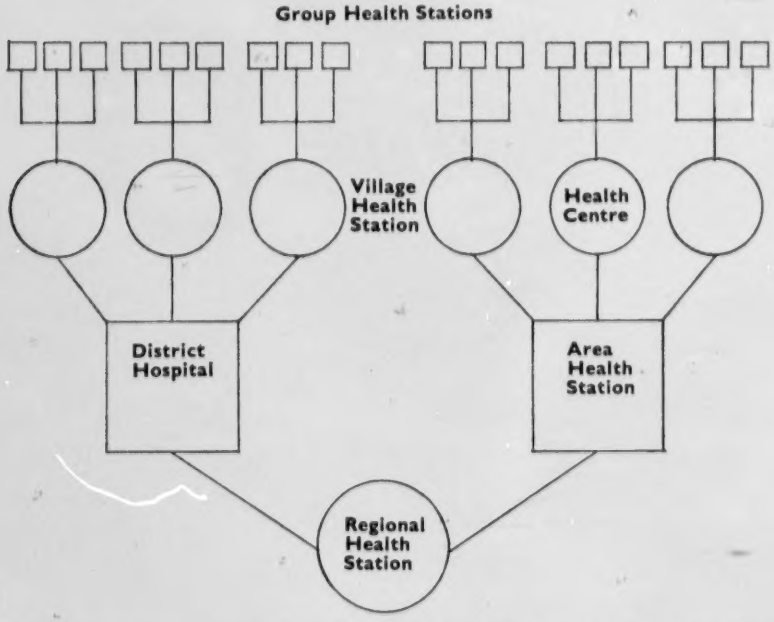
They should take advantage of structures within the society which so far they have not been using. There are forces in the society which take popular decisions on what is good health and what is bad health. There are traditional groups within the society to whom the people have always turned for maintenance of their health, and for care

in times of sickness. It is time that these groups were identified, re-oriented and given a part to play in the big demands of health activities within the community.

Where promotive and protective services are concerned, what we need to develop now is a full understanding by society, or by the community, of its role in the provision of its own health care. Traditionally each society has its own morals and norms, its own aspirations and achievements; and a major concern of today's doctors should be how to include good health practices in these aspirations.

Personnel must be trained, supervised and retrained if necessary, according to programme needs. A judicious structure should be created, with clear referral chains from village health workers or community health aides through other health workers to doctors. The health leadership should be prepared to identify not only with the communities but also with the political decision-making process, so as to influence and be influenced by the people's chosen leaders.

An approach to health care delivery which starts with the premise that medical care is best given at the family, household or community level can be structured around facilities of increasing complexity, as illustrated in the diagram below:



Group health stations are in villages or city blocks: they refer either to village health stations or health centres. These are in turn supervised from an area or district health station or hospital.

Family health and family planning have a recognizable place in this context. There is no reason why at the present time doctors should not help to mount programmes within the community based on the fact that the condom, many of the jellies and even the oral contraceptive—the 28-day pill—do not have to be doctor or clinic-dependent any more. Nobody can predict which woman is going to have difficulty with orals; and to keep orals on prescription, at the present time, in communities where health workers are in such short supply is nonsense.

What is required is to have trained people within the community who have the capacity for maintaining the interest of the individuals who are using these methods so that they use them satisfactorily. Such people should be able to indicate what to look for and where to seek further advice. People who are illiterate are not necessarily ignorant or stupid and it must be recognized that among populations where the literacy rate is 10 or so per cent, large numbers of the population are quite bright enough, with very little training, to handle much of the doctor's work. This applies also to immunization programmes, nutrition programmes and to general health education programmes. The doctors' new role should therefore be to help identify and enlist the major supports and the major reference systems within a society. They should bring all of these groups into programmes which will be comprehensive in an educational sense as well as in the provision of services within a community.

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